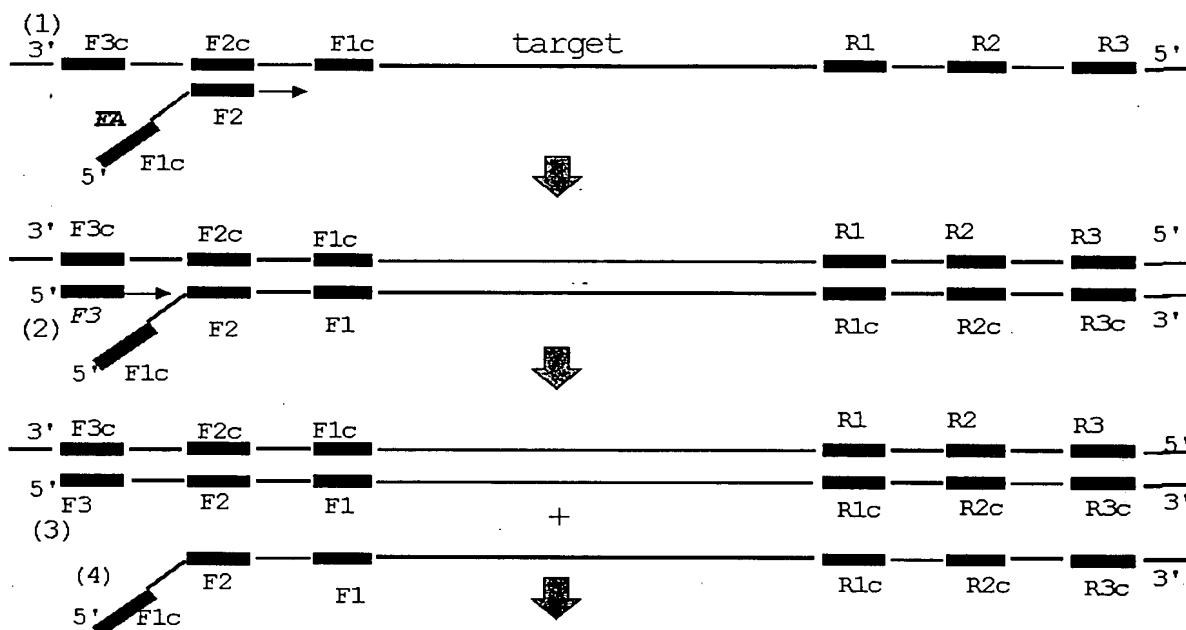


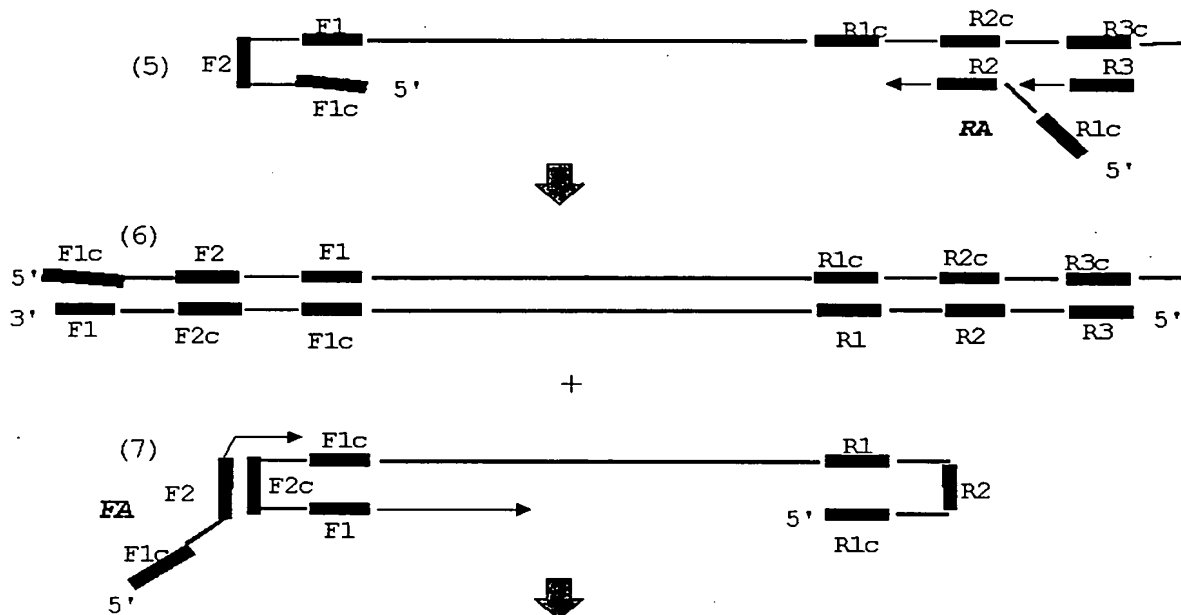
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Fig. 1



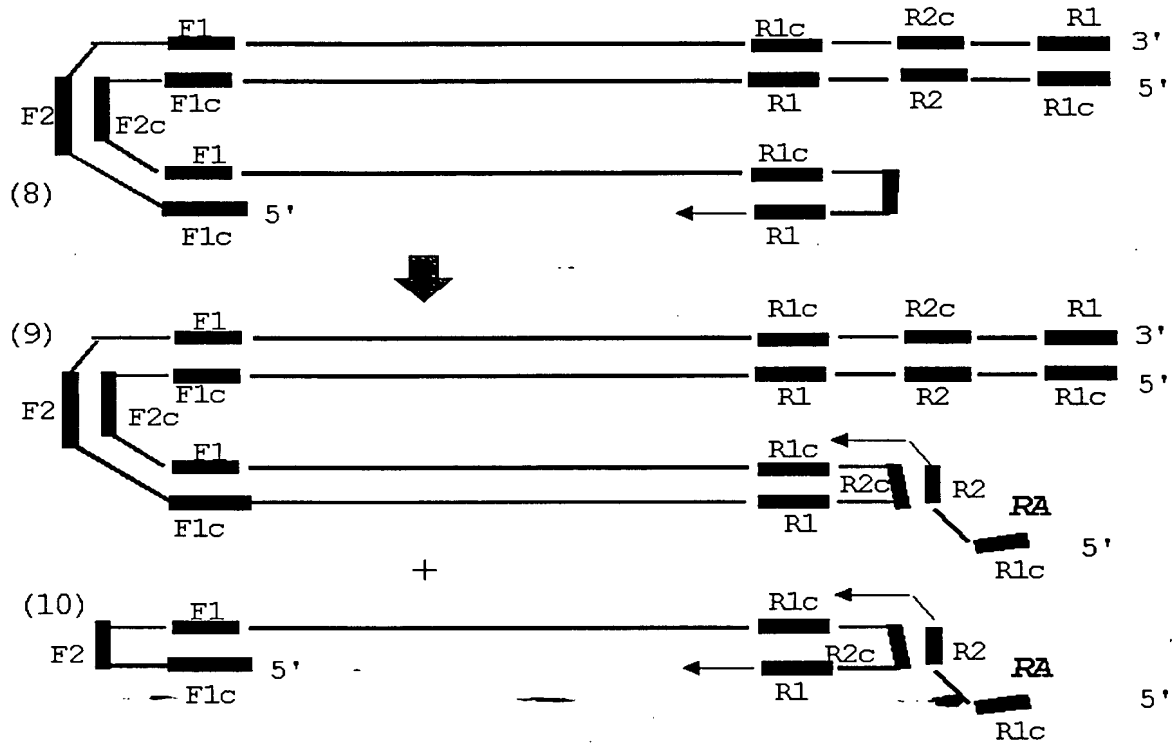
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Fig. 2



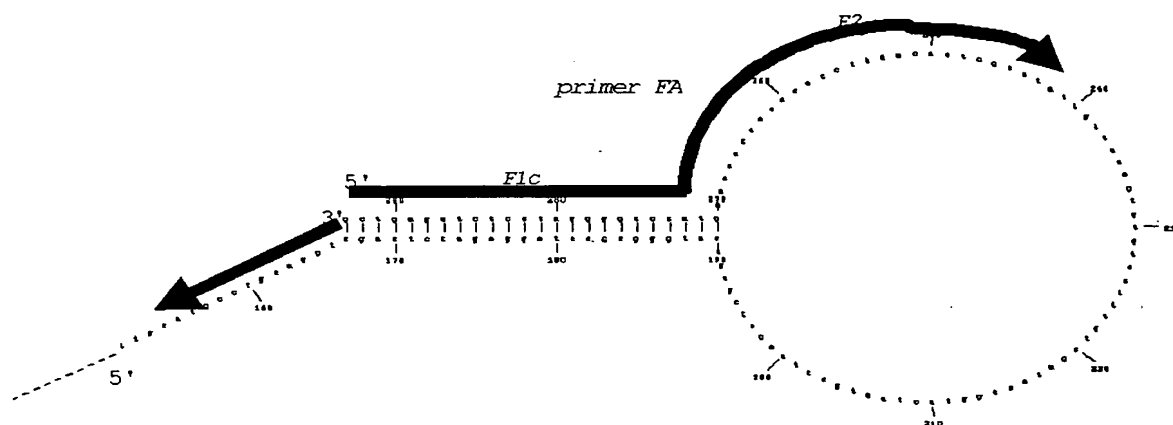
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Fig. 3



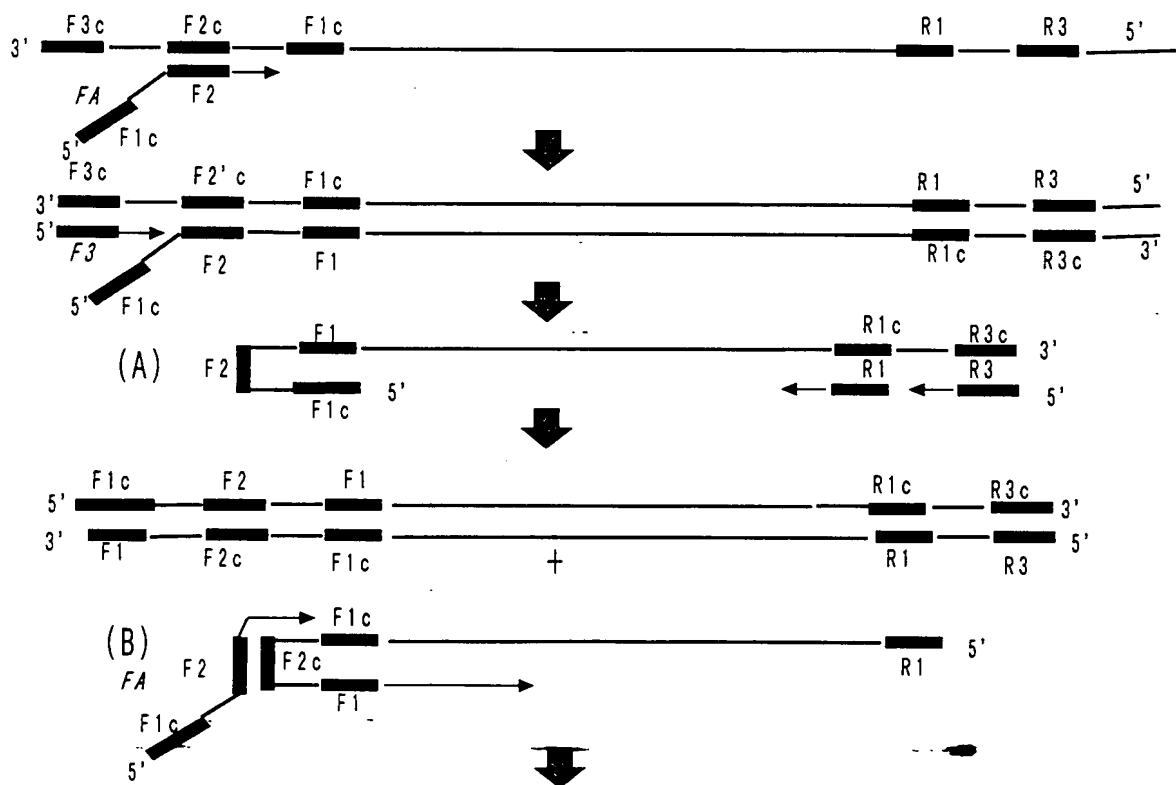
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Fig. 4



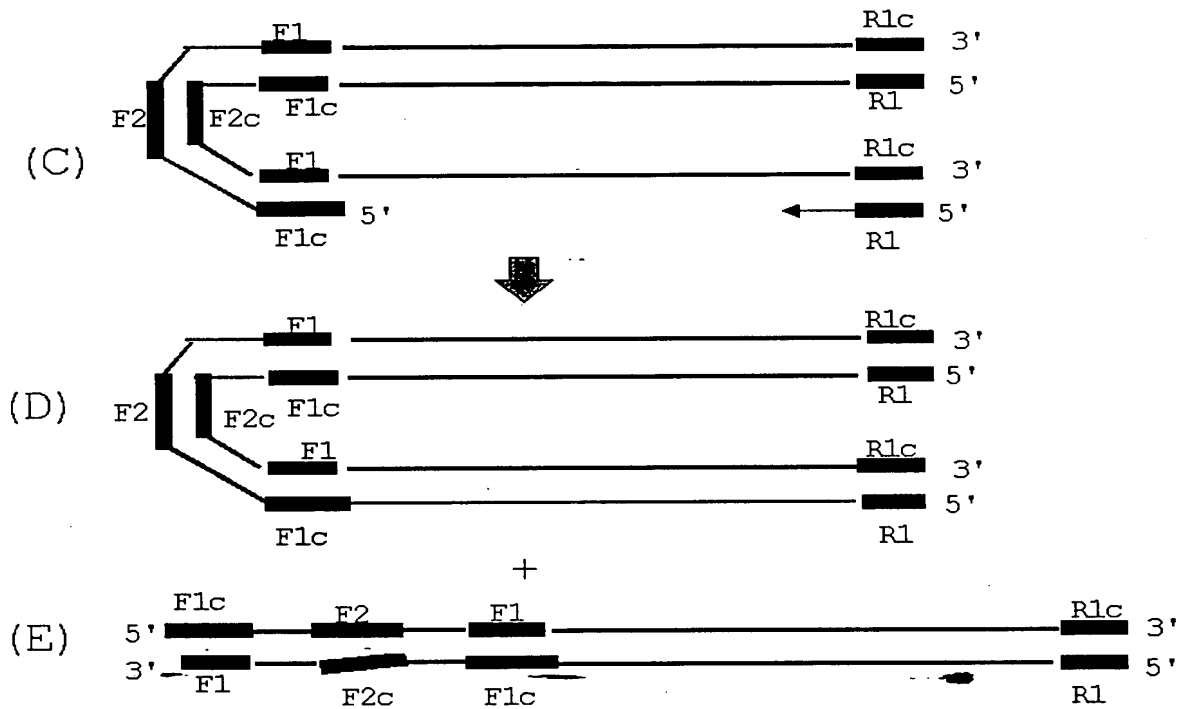
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Fig. 5



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Fig. 6



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Fig. 7

6001 GGGCCCAATA CGCAAACCGC CTCCTCCCGC GGGTTGGGCG ATTCATTAAT GCAGCTGGCA

6061 CGACAGGTTT CCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATG TGAGTTAGCT

6121 CACTCATTAG GCACCCAGG CTTTACACTT TATGCTTCCG GCTCGTATGT TGTGTGGAAT

6181 TGTGAGOGGA TAACAATTTC ACACAGGAAA CAGCTATGAC CATGATTACG AATTCGAGCT

6241 CGGTACOCGG GGATCCTCTA GAGTCGACCT GCAGSCATGC AAGCTTGGCA CTGGCOGTOG

6301 TTTTACAACG TCGTGA CTGG GAAAACCTG GCGTTACCCA ACTTAATGCG CTTGCAGCAC

6361 ATCCCCCTTT CGCCAGCTGG CGTAATAGG AAGAGGCCG CACCGATGC CCTTCCCAAC

6421 AGTTGCGCAG CCTGAATGGC GAATGGCGCT TTGCTGCTT TCCGGCACCA GAAGCGGTGC

6481 CGGAAAGCTG GCTGGAGTGC GATCTTCTG AGGCGGATAC GGTCGTCGTC CCCTCAAAC

6541 GGCAGATGCA CGGTTACGAT GCGCCCATCT ACACCAACGT AACCTATGCC ATTACGGTCA

M13F3 M13F2

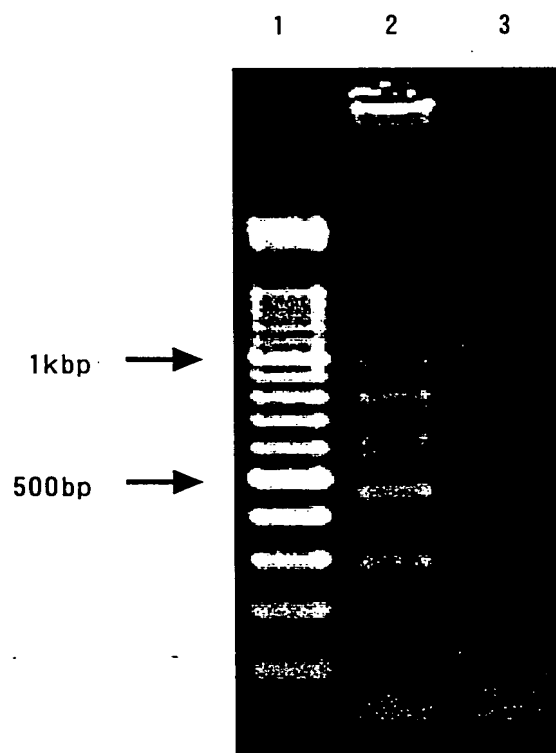
M13F1c

M13R1c

M13R2 M13R3

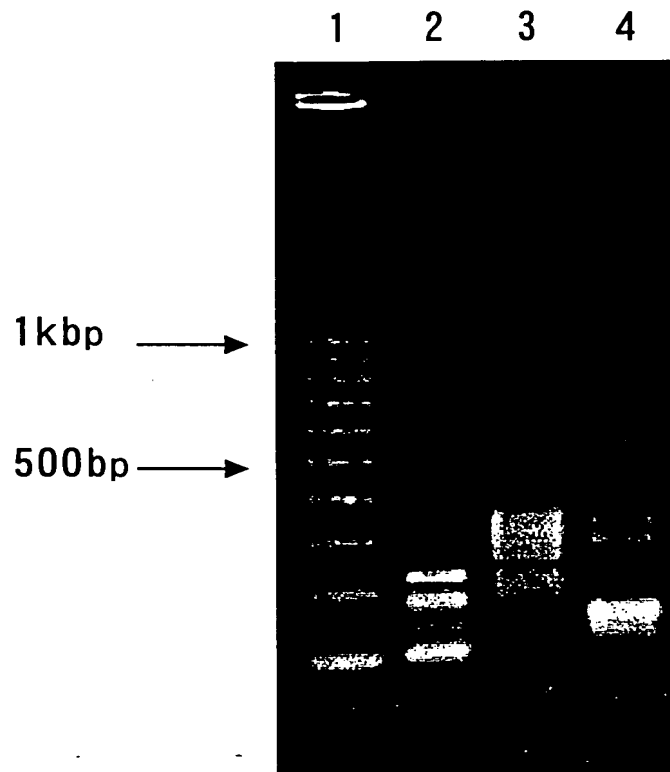
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Fig. 8



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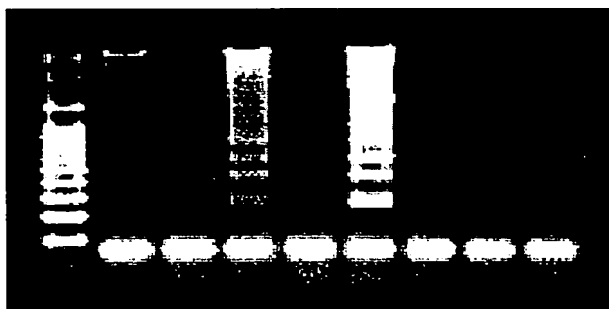
Fig. 9



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Fig. 10

0 0.5 1 2M
-21 N -21 N -21 N -21 N



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Fig. 11

1 CTCCTTGACA CCGCCTCTGC TCTGTATCGG GAGGCTTAG AGTCTCCGA ACATTGTTCA

61 OCTCACCATA CAGCACTCAG GCAAGCTATT CTGTGTGGG GTGAGTTAAT GAATCTGGOC

HB3 HB65F2

121 ACCTGGGTGG GAAGTAATTT GGAAGACCCA GCATCCAGGG AATTAGTAGT CAGCTATGTC

HB65F1c

181 AATGTTAATA TGGGCTAAA AATCAGACAA CTATTGTGGT TTCACATTTC CTGCCTTACT

HB65R1c

241 TTTGGAAGAG AAAGTGT TTTT GGAGTATTTG GTATCTTTTG GAGTGTGGAT TCGCACTCCT

301 CCCGCTTACA GACCACCAA TGCCCTATC TTATCAACAC TTCCGGAAAC TACTGTTGTT

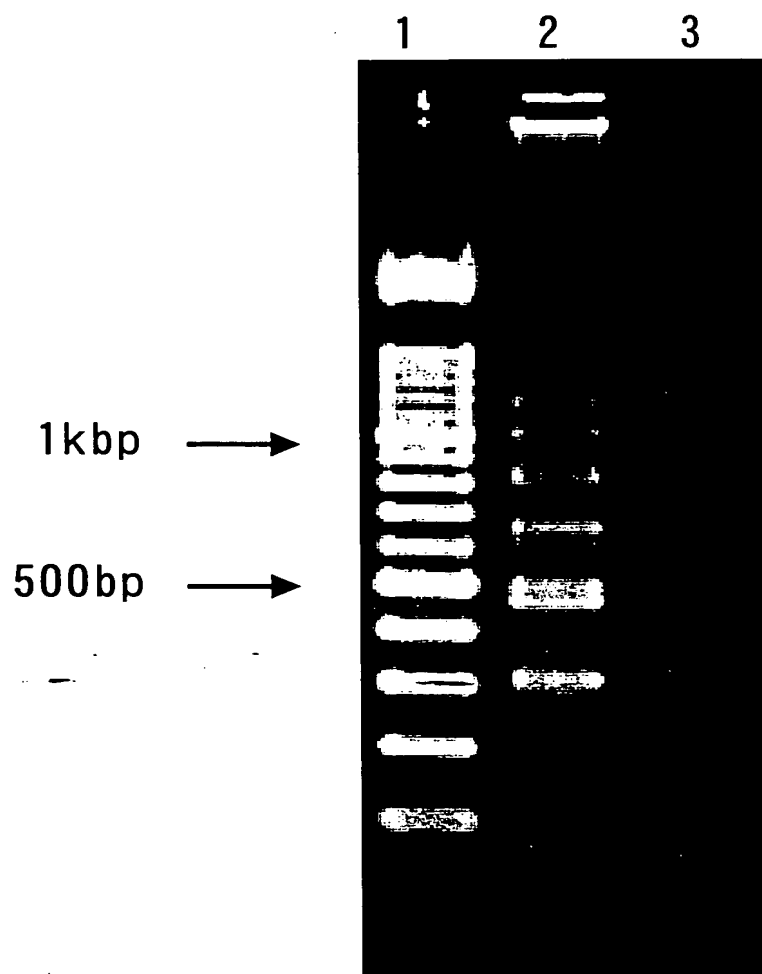
HB65R2 HBR3

361 AGAAGACGAG GCAGGTCCCG TAGAAGAAGA ACTCCCTCGC CTCGCAGACG AAGGTCTCAA

421 TCGCCGCGTC

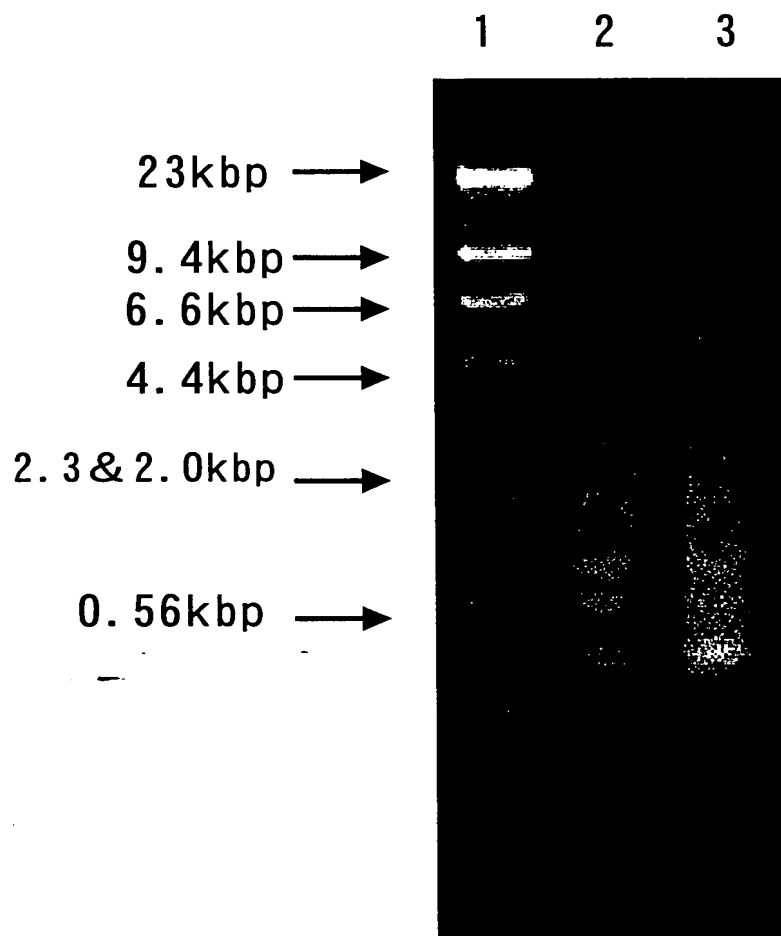
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Fig. 12



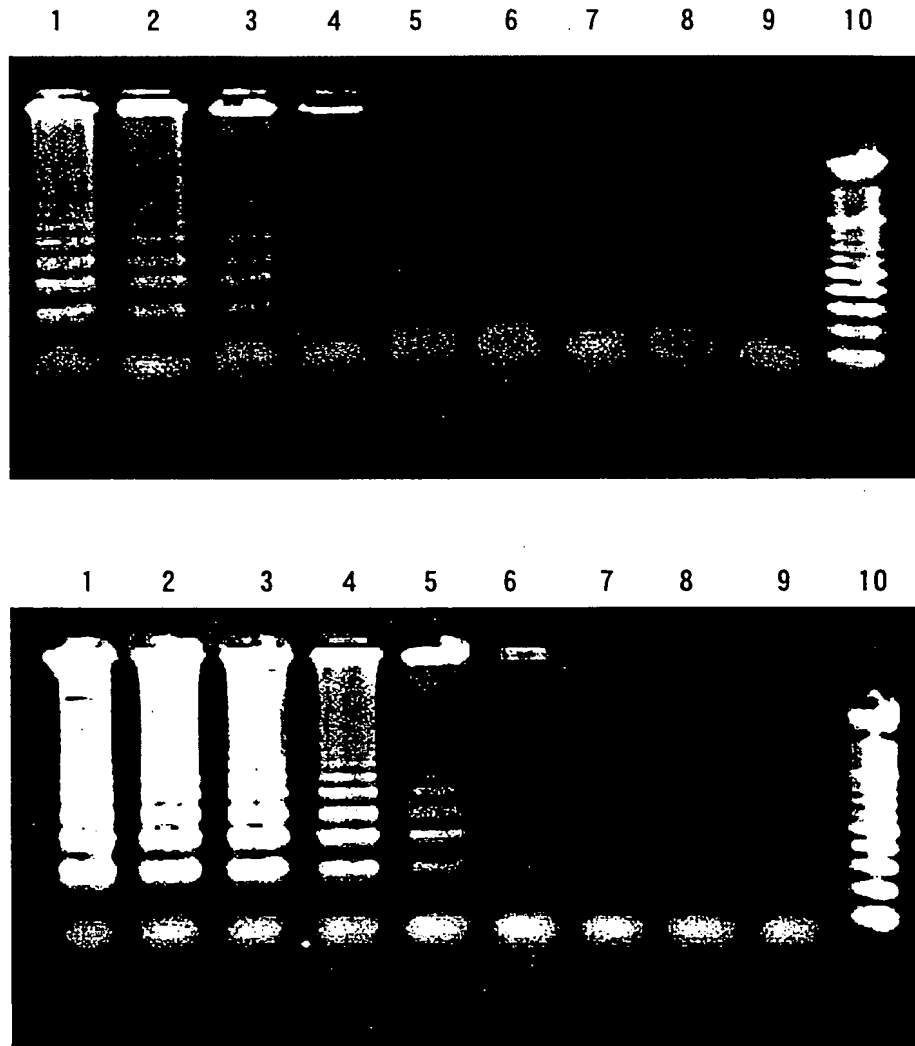
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Fig. 13



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Fig. 14



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Fig. 15

6001 GCGCCCAATA CGCAAACCGC CTCTCCCCGC GCGTTGGCCG ATTCATTAAT GCAGCTGGCA
6061 CGACAGGTTT CCCGACTGGA AAGCGGGCAG TGAGCGCAAC GCAATTAATG TGAGTTAGCT
6121 CACTCATTAG GCACCCCAAG CTTTACACTT TATGCTTCCG GCTCGTATGT TGTGTGGAAT
6181 TGTGAGCGGA TAACAATTTC ACACAGGAAA CAGCTATGAC CATGATTACG AATTCGAGCT
6241 CGGTACCCGG GGATCCTCTA GAGTCGACCT GCAGGCATGC AAGCTTGGCA CTGGCCGTCG
6301 TTTTACAACG TCGTGACTGG GAAAACCCTG GCGTTACCCA ACTTAATCGC CTTGCAGCAC
6361 ATCCCCCTTT CGCCAGCTGG CGTAATAGCG AAGAGGCCCG CACCGATCGC CCTTCCAAC
6421 AGTTGCGCAG CCTGAATGGC GAATGGCGCT TTGCCTGGTT TCCGGCACCA GAAGCGGTGC
6481 CGGAAAGCTG GCTGGAGTGC GATCTTCCTG AGGCCGATAC GGTCGTCGTC CCCTCAAAC
6541 GGCAGATGCA CGGTTACGAT GCGCCCATCT ACACCAACGT AACCTATCCC ATTACGGTCA

M13F3 → M13F2 d4

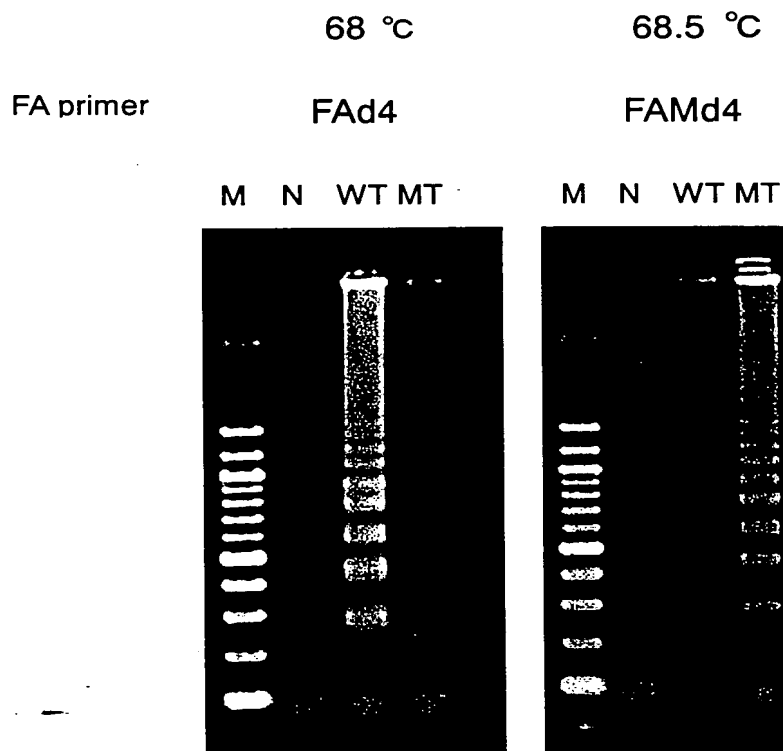
← M13F1c d4

M13R1c d4 → A

← M13R2 d4 ← M13R3

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Fig. 16



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Fig. 17

1 ATTCCGCCGG AGAGCTGTGT CACCATGTGG GTCCCGGTTG TCTTCCTCAC CCTGTCCGTG

61 ACGTGGATTG GTGCTGCACC CCTCATCCTG TCTCGGATTG TGGGAGGCTG GGAGTGCGAG

121 AAGCATTCCC AACCCCTGGCA GGTGCTTGTG GCCTCTCGTG GCAGGGCAGT CTGCGGCGGT

181 GTTCTGGTGC ACCCCCAGTG GGTCCTCACA GCTGCCCACT GCATCAGGAA CAAAAGCGTG

241 ATCTTGCTGG GTCGGCACAG CCTGTTTCAT CCTGAAGACA CAGGCCAGGT ATTTTCAGGTC

301 AGCCACAGCT TCCCACACCC GCTCTACGAT ATGAGCCTCC TGAAGAATCG ATTCCTCAGG

361 CCAGGTGATG ACTCCAGCCA CGACCTCATG CTGCTCCGCC TGTCAGAGCC TGCCGAGCTC

421 ACGGATGCTG TGAAGGTCAT GGACCTGCCC ACCCAGGAGC CAGCACTGGG GACCACCTGC

481 TACGCCTCAG GCTGGGGCAG CATTGAACCA GAGGAGT

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Fig. 18

